

137532

**SEARCH REQUEST FORM** Scientific and Technical Information Center - EIC2800  
 Nov. 3/18/2004 This is an experimental format -- Please give suggestions or comments to Jeff Harrison, JEF-4B68, 272-2511.

Date 11/19/04 Serial # 09/993,967 Priority Application Date 2000 12/06  
 Your Name Mihewis Examiner # \_\_\_\_\_  
 AU 2822 Phone 272-1838 Room 5A30  
 In what format would you like your results? Paper is the default. ☒ PAPER ☐ DISK ☐ EMAIL

If submitting more than one search, please prioritize in order of need.

*Need before 11/25*

The EIC searcher normally will contact you before beginning a prior art search. If you would like to sit with a searcher for an interactive search, please notify one of the searchers.

Where have you searched so far on this case?

11-10-04 11:22 IN

Circle: USPT DWPI EPO Abs JPO Abs IBM TDB

Other: \_\_\_\_\_

What relevant art have you found so far? Please attach pertinent citations or Information Disclosure Statements. \_\_\_\_\_

What types of references would you like? Please checkmark:

Primary Refs ☒ Nonpatent Literature \_\_\_\_\_ Other \_\_\_\_\_  
 Secondary Refs ☒ Foreign Patents \_\_\_\_\_  
 Teaching Refs \_\_\_\_\_

What is the topic, such as the **novelty**, motivation, utility, or other specific facets defining the desired **focus** of this search? Please include the concepts, synonyms, keywords, acronyms, registry numbers, definitions, structures, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract and pertinent claims.

Claims 4, 5, 7, 8, 22, 23, 25, 26 & 27

Problem: See pages 5 lines 1-21  
Solution: " " 5 & 6

Scott

Please do an updated search.

**Staff Use Only**

Searcher: Scott Horton  
 Searcher Phone: 2-2663  
 Searcher Location: STIC-EIC2800, JEF-4B68  
 Date Searcher Picked Up: 11/18/04  
 Date Completed: 11/19/04  
 Searcher Prep/Rev Time: 360  
 Online Time: 59

**Type of Search**

Structure (#) \_\_\_\_\_  
 Bibliographic ☒  
 Litigation \_\_\_\_\_  
 Fulltext ☒  
 Patent Family \_\_\_\_\_  
 Other \_\_\_\_\_

**Vendors**

STN ☒  
 Dinlog ☒  
 Questel/Orbit \_\_\_\_\_  
 Lexis-Nexis \_\_\_\_\_  
 WWW/Internet \_\_\_\_\_  
 Other \_\_\_\_\_

SET ABB=ON PLU=ON

FILE 'HCAPLUS' ENTERED AT 13:34:10 ON 19 NOV 2004

L1 QUE STI OR TRENCH? OR GROOVE? OR ULSI OR  
VERTICAL(2A) (DRAM# OR CAPACITOR? OR TRANSISTOR? OR MEMOR?)  
L2 QUE MEMORY? OR MEMORIE? OR RAM? OR DRAM? OR  
RDRAM? OR SDRAM? OR STOR#### OR REGISTER?  
L3 QUE COLL!R? OR EXPAN#### OR INDENT#### OR  
RECESS#### OR RECED#### OR RING## OR WIDE#####  
L4 QUE SECOND OR ADDITIONAL OR PLURAL#### OR  
ANOTHER OR OTHER# OR MULTI OR MULTIPL? OR FURTHER? OR MORE  
L5 QUE (CONNECT#### OR STRAP#) (2A) (BURIE# OR  
BURYING OR BURY### OR RECESS? OR BELOW OR UNDER? OR SA OR  
SELF(W)ALIGN####)  
L6 QUE BOTTOM# OR LOWER# OR UPPER# OR TOP# OR  
UNDERSIDE# OR UNDER(W)SIDE#  
L7 8 S L1 AND L2 AND L3 AND L4 AND L5 AND L6  
L8 8 DUP REM L7 (0 DUPLICATES REMOVED)  
L9 8 S L8  
L10 0 S L9 NOT P/DT NOT PY>2000  
L11 8 S L8  
L12 8 S L11 AND P/DT

File 350:**Derwent WPIX** 1963-2004/UD,UM &UP=200474  
 (c) 2004 Thomson Derwent  
 File 344:**Chinese Patents Abs** Aug 1985-2004/May  
 (c) 2004 European Patent Office  
 File 347:**JAPIO** Nov 1976-2004/Jul(Updated 041102)  
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 File 371:**French Patents** 1961-2002/BOPI 200209  
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 File 383:**Ei EnCompassPat**(TM) (Ontap)  
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Set	Items	Description
S1	626482	STI OR TRENCH? OR GROOVE? OR ULSI OR VERTICAL(2N) (DRAM? ? - OR CAPACITOR? OR TRANSISTOR? OR MEMOR?)
S2	2826246	MEMORY? OR MEMORIE? OR RAM? OR DRAM? OR RDRAM? OR SDRAM? OR STOR???? OR REGISTER?
S3	2014497	COLL?R? OR EXPAN???? OR INDENT???? OR RECESS???? OR RECED?- ??? OR RING?? OR WIDE?????
S4	6593743	SECOND OR ADDITIONAL OR PLURAL???? OR ANOTHER OR OTHER? ? - OR MULTI OR MULTIPL?
S5	25011	(CONNECT???? OR STRAP? ?) (2N) (BURIE? ? OR BURYING OR BURY?- ?? OR RECESS? OR BELOW OR UNDER? OR SA OR SELF(W)ALIGN????)
S6	3398331	BOTTOM? ? OR LOWER? ? OR UPPER? ? OR TOP? ? OR UNDERSIDE? ? OR UNDER(W)SIDE? ?
S7	61	S1 AND S2 AND S3 AND S4 AND S5 AND S6
S8	1338499	SEMICOND? OR IC OR INTEG?(N)CIRCUIT? OR ICS
S9	31	S7 AND S8
S10	31	IDPAT (sorted in duplicate/non-duplicate order)
S11	31	IDPAT (primary/non-duplicate records only)
S12	21264	AU=(YAMADA, T? OR YAMADA T?)
S13	439	AU=(KAJIYAMA T? OR KAJIYAMA, T?)
S14	3	S12 AND S13
S15	3	S14 NOT S11

File 2:**INSPEC 1969-2004/Jul W4**  
(c) 2004 Institution of Electrical Engineers  
File 6:**NTIS 1964-2004/Aug W1**  
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File 94:**JICST-EPlus 1985-2004/Jul W2**  
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(c) 2004 Contains copyrighted material  
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File 239:**Mathsci 1940-2004/Sep**  
(c) 2004 American Mathematical Society  
File 241:**Elec. Power DB 1972-1999Jan**  
(c) 1999 Electric Power Research Inst.Inc  
File 305:**Analytical Abstracts 1980-2004/Jul W4**  
(c) 2004 Royal Soc Chemistry  
File 315:**ChemEng & Biotec Abs 1970-2004/Jul**  
(c) 2004 DECHEMA  
File 987:**TULSA (Petroleum Abs) 1965-2004/Aug W1**  
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File 34:**SciSearch(R) Cited Ref Sci 1990-2004/Oct W4**  
(c) 2004 Inst for Sci Info  
File 434:**SciSearch(R) Cited Ref Sci 1974-1989/Dec**  
(c) 1998 Inst for Sci Info

Set	Items	Description
S1	149903	STI OR TRENCH? OR GROOVE? OR ULSI OR VERTICAL(2N) (DRAM? ? - OR CAPACITOR? OR TRANSISTOR? OR MEMOR?)
S2	3132232	MEMORY? OR MEMORIE? OR RAM? OR DRAM? OR RDRAM? OR SDRAM? OR STOR???? OR REGISTER?
S3	3769549	COLL?R? OR EXPAN???? OR INDENT???? OR RECESS???? OR RECED?- ??? OR RING?? OR WIDE?????
S4	16531928	SECOND OR ADDITIONAL OR PLURAL???? OR ANOTHER OR OTHER? ? - OR MULTI OR MULTIPL? OR FURTHER? OR MORE
S5	9324	(CONNECT???? OR STRAP? ?) (2N) (BURIE? ? OR BURYING OR BURY?- ?? OR RECESS? OR BELOW OR UNDER? OR SA OR SELF(W)ALIGN????)
S6	3525113	BOTTOM? ? OR LOWER? ? OR UPPER? ? OR TOP? ? OR UNDERSIDE? ? OR UNDER(W)SIDE? ?
S7	0	S1 AND S2 AND S3 AND S4 AND S5 AND S6
S8	4	S1 AND S2 AND S3 AND S4 AND S5
S9	4	RD (unique items)
<b>S10</b>	<b>4</b>	<b>S9 NOT PY&gt;2000</b>
S11	678145	S1:S6 AND SEMICOND?
S12	16488	S11 AND S1
S13	1952	S11 AND S1 AND S3
S14	11907868	SECOND OR ADDITIONAL OR PLURAL???? OR ANOTHER OR OTHER? ? - OR MULTI OR MULTIPL?
S15	450	S11 AND S1 AND S3 AND S14
S16	0	S11 AND S1 AND S3 AND S14 AND S5
S17	74	S11 AND S1 AND S3 AND S14 AND S6
S18	14	S17 AND S2
<b>S19</b>	<b>4</b>	<b>S18 NOT S10 NOT PY&gt;2000</b>

File 348: **EUROPEAN PATENTS** 1978-2004/Nov W01

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File 349: **PCT FULLTEXT** 1979-2002/UB=20041118,UT=20041111

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Set	Items	Description
S1	200432	STI OR TRENCH? OR GROOVE? OR ULSI OR (UPRIGHT? OR VERTICAL OR VERT) (2N) (DRAM? ? OR CAPACITOR? OR TRANSISTOR? OR MEMOR?)
S2	71414	MEMORY? OR MEMORIE? OR RAM OR RAMS OR DRAM? OR RDRAM? OR S-DRAM? OR STOR???? OR REGISTER?
S3	150949	COLL?R? OR EXPAN???? OR INDENT???? OR RECESS???? OR RECED?-??? OR RING?? OR WIDE?????
S4	190552	SECOND OR ADDITIONAL OR PLURAL???? OR ANOTHER OR OTHER? ? - OR MULTI OR MULTIPL? OR FURTHER? OR MORE
S5	8210	(CONNECT???? OR STRAP? ?) (2N) (BURIE? ? OR BURYING OR BURY?-?? OR RECESS? OR BELOW OR UNDER? OR SA OR SELF(W)ALIGN????)
S6	158200	BOTTOM? ? OR LOWER? ? OR UPPER? ? OR TOP? ? OR UNDERSIDE? ? OR UNDER(W)SIDE? ?
S7	66	S1(10N)S2(10N)S3(10N)S4(10N)S5(10N)S6
S8	66	IDPAT (sorted in duplicate/non-duplicate order)
S9	66	IDPAT (primary/non-duplicate records only)
S10	0	S9 AND AC=(WO OR US) (S)AD<20001206
S11	3	S9 AND AC=(WO OR US) (S)AD=19820403:20001206
S12	3	S9 AND AC=(WO OR US) (S)AD=19871103:20001206
S13	33	S9 AND AC=(WO OR US) (S)AD=19930323:20001206
S14	18	S9 AND AC=(WO OR US) (S)AD=19980719:20001206
S15	43	S9 AND PD<20001206
S16	30	S9 AND PD=19990113:20001206
S17	57	S10:S16
S18	17	S4(10N)S2(10N)(S3(5N)S1)(10N)S5(10N)S6